



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

|  |             |                      |                     |                  |
|--|-------------|----------------------|---------------------|------------------|
| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/566,402   | 07/05/2006  | Antoni Torrens Jover | 283625US0PCT        | 3719             |
| 22850  | 7590        | 03/29/2010           |                     |                  |
| OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.<br>1940 DUKE STREET<br>ALEXANDRIA, VA 22314 |             |                      |                     |                  |
| EXAMINER   |             |                      |                     |                  |
| RAMACHANDRAN, UMAMAHESWARI   |             |                      |                     |                  |
| ART UNIT   |             | PAPER NUMBER         |                     |                  |
| 1627   |             |                      |                     |                  |
| NOTIFICATION DATE  |             | DELIVERY MODE        |                     |                  |
| 03/29/2010   |             | ELECTRONIC           |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

**Office Action Summary****Application No.**

10/566,402

**Applicant(s)**

TORRENS JOVER ET AL.

**Examiner**UMAMAHESWARI  
RAMACHANDRAN**Art Unit**

1627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 10-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-2, 4-9 and 34-45 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

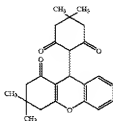
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1/30/2006, 4/12/2006
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

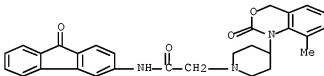
Applicant's election of the following species in the reply filed on 1/4/2010 is acknowledged. Applicants have provisionally elected the following species, for examination purposes only: (1) 2-(4-(8-methyl-2-oxo-2,4-dihydro-1H-benzo[d][1,3]oxazin-1-yl)piperidin-1-yl)-N-(9-oxo-9H-fluoren-3-yl)acetamide hydrochloride as a compound binding NPY5 receptor (at least claims 1 - 45 readable thereon) (2) 5-chloro-N-(3-(2-(dimethylamino)ethyl)-1H-indol-5-yl)naphthalene-2-sulfonamide as a compound binding 5-HT6 receptor (at least claims 1 - 45 readable thereon) (3) regulation of appetite as the disease (at least claims 7, 9 and 34 - 45 readable thereon). Applicants' argue the Office has not provided any reasons or examples to support a conclusion that the species are indeed patentably distinct and submit that the restriction is improper. In response, applicants claim an active substance combination comprising at least one compound with neuropeptide Y (NPY) receptor affinity, and at least one compound with 5-HT6 receptor affinity. As stated in the Requirement for Restriction/Election, there are at least six different receptor subtypes named Y1-Y6 in NPY binding receptor family, each NPY receptor subtype is generally associated to a different biological activity. There are a large number of agonists, antagonist compounds that fall under the category of 5-HT6 receptor affinity compounds. Claim 1 is very broad in scope that it claims all compounds with NPY receptor affinity. For example Fukami et al. (US 6,258,837)



teaches neuron peptide Y receptor antagonist compounds with the above structure.

This compound is structurally distinct from the 1, 4 disubstituted piperidine compounds claimed by the Applicants. In addition for example, compounds of formula I(a) can be structurally different. For example when R10a and R11a together with the bridging nitrogen atom form an optionally at least mono-substituted, saturated, unsaturated or aromatic heterocyclic ring that may contain at least one further heteroatom as a ring member and/or may be condensed with an optionally at least mono-substituted mono- or polycyclic ring system that is structurally distinct from a compound where R10a = R11a = H, which is amide compound. If the substitutions on the 1, 4 disubstitued piperidine compounds of formula I(a) is for example, heteroaryl aryl radical the derivatives are structurally distinct based on the heteroatoms(O, N, S, P etc) and based on the ring system (3 or 4 or 5 or 6 or 7 membered ring). Also, applicants' claim the use of combination of compounds with neuropeptide Y (NPY) receptor affinity and compounds with 5-HT6 receptor affinity for treating a variety of diseases as listed above. Each disease has a different and distinct etiology and pathophysiological manifestations, and that each is differently treated. Such is sufficient to indicate that each of the methods of treating the presently claimed disease states is differently searched in the patent and non-patent literature and that a search for one disease will

not necessarily result in a comprehensive search of any one or more of the diseases listed. As a result, an undue burden would be placed on the Examiner to search each of Applicant's presently claimed species. Hence the requirement for restriction/election is deemed proper and is made Final. Claims 11-33 are withdrawn from consideration. Applicants' elected species 2-(4-(8-methyl-2-oxo-2,4-dihydro- 1H-benzo [d] [ 1,3 ]oxazin- 1 -yl)piperidin- 1 -yl)-N-(9- oxo-9H-fluoren-3-yl)acetamide hydrochloride has the structural formula as



Claim 3, formula I(a) do not read on the elected species. Accordingly, claim 4 is withdrawn from consideration. Claims 1-2, 4-9, 34-45 read on the elected species and will be examined on the merits herein.

### ***Double Patenting***

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 1-2, 4-9, 34-45 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-2, 4-9, 34-45 of copending Application No.

10/566,100. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-2, 4-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what does the term "medicament" mean. Is it a composition containing a therapeutically effective amount of a medicine? Or is it administration of a medicine to cause an effect in treating one of the disorders? The claims are considered hybrid claims containing multiple categories of invention i.e. both composition and method of use. The claims are confusing and indefinite as explained: If the claims are drawn to pharmaceutical composition, how many are there? Please note that treatment of disease or disorder in current practice is pathology or symptom oriented. The effective process/composition of regulation of appetite would require decrease/increase of food intake. Such a process/composition would be detrimental to the person who is anorexic or bulimic or obese. In addition, for a composition to be effective in treating diabetes, a process/effective amount of lowering blood glucose (please note that treating diabetes or diabetic complication are different disorders) is needed; for treating cardiovascular disorder such as ischemic coronary disorder, an coronary vasodilating process/effective amount is needed; for treating epilepsy, an anticonvulsive process/effective amount is needed, etc. Therefore, it is unclear how

many compositions or processes are encompassed by the claims. In addition, the claimed processes or compositions are intended for accomplishing opposite effects such as treating obesity and bulimia at the same time which is incredible. Furthermore, the claims also include "prophylaxis" which is self conflicting since for example if the composition is for "improvement" or "treatment" of a diagnosed disorder, there could not be any de novo prophylaxis efficacy.

The limitation "combination, characterized in that it comprises at least one..." in the Markush groups of claims 1-9 is indefinite. First, it is improper to use the open language "comprising" in a Markush group because the optional choices do not compose a closed set (see MPEP § 2173.05(h)). Further, this limitation is indefinite because it is unclear what is meant by a combination that comprises one of the elements from the list, which is a combination encompassed by the phrase "at least one". What else are the elements combined with to form a combination comprising one of the elements? Thus, the metes and bounds of patent protection sought for the instantly claimed formulations have not been defined.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-2, 4-9, 34-45 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in

the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification while providing guidance of how to make the compounds or prima facie modification of such compounds to its pharmaceutically addition salt with pharmaceutically acceptable acids, does not provide enablement for making unknown solvates. The specification does not enable any person skilled in the art of synthetic organic chemistry to make the invention commensurate in scope with these claims. "The factors to be considered [in making an enablement rejection] have been summarized as a) the quantity of experimentation necessary, b) the amount of direction or guidance presented, c) the presence or absence of working examples, d) the nature of the invention, e) the state of the prior art, f) the relative skill of those in that art, g) the predictability or unpredictability of the art, h) and the breadth of the claims", *In re Rainer*, 146 USPQ 218 (1965); *In re Colianni*, 195 USPQ 150, *Ex parte Formal*, 230 USPQ 546.

In the present case the important factors leading to a conclusion of undue experimentation are the absence of any working example of a formed solvate, the lack of predictability in the art, and the broad scope of the claims.

g) The state of the art is that is not predictable whether solvates will form or what their composition will be. In the language of the physical chemist, a solvate of organic molecule is an interstitial solid solution. This phrase is defined in the second paragraph on page 358 of West (Solid State Chemistry). West, Anthony R., "Solid State Chemistry and its Applications, Wiley, New York, 1988, pages 358 & 365. The solvent molecule is a species introduced into the crystal and no part of the organic host molecule is left out



or replaced. In the first paragraph on page 365, West (Solid State Chemistry) says, "it is not usually possible to predict whether solid solutions will form, or if they do form what is their compositional extent". Thus, in the absence of experimentation one cannot predict if a particular solvent will solvate any particular crystal. One cannot predict the stoichiometry of the formed solvate, i.e. if one, two, or a half a molecule of solvent added per molecule of host. In the same paragraph on page 365 West (Solid State Chemistry) explains that it is possible to make meta-stable non-equilibrium solvates, further clouding what Applicants mean by the word solvate. Compared with polymorphs, there is an additional degree of freedom to solvates, which means a different solvent or even the moisture of the air that might change the stable region of the solvate.

h) The breadth of the claims includes all of the hundreds of thousands of compounds of formula I as well as the presently unknown list of solvents embraced by the term "solvate". Thus, the scope is broad.

MPEP 2164.01(a) states, "A conclusion of lack of enablement means that, based on the evidence regarding each of the above factors, the specification, at the time the application was filed, would not have taught one skilled in the art how to make and/or use the full scope of the claimed invention without undue experimentation. *In re Wright*, 999 F.2d 1557,1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993)." That conclusion is clearly justified here.

#### ***Claim Objections***

Claim 6 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only and/or

cannot depend from any other multiple dependent claim. Claim 7 refers back to a multiple dependent claim 6. Claim 7 depends on claim 6 which depends on any one of the claims 1 to 5. See MPEP § 608.01(n). Appropriate correction is required.

Claim 4 is objected to because of the following informalities: Claim 4, line 2 has a limitation, 'at least one compound ist present'. Appropriate correction is required.

Claims 7 and 8 are objected to because of the following informalities: Claim 7, line 1 has a limitation 'neuropeptide Y-', claim 8, line 2 has a limitation 'neuropeptide Y5-'. It is not clear why '-' or '5-' has been added. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 8-9 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8-9 provides for the use of the combination of a compound with NPY (neuropeptide Y) receptor affinity with at least one compound of 5-HT6 receptor affinity in the manufacture of a medicament for simultaneous neuropeptide Y5- and 5-HT6 receptor regulation and use of such combination for the manufacture of a medicament for regulation of appetite but, since the claims do not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-2, 4-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims are directed to an active substance combination of at least one compound with neuropeptide receptor Y (NPY) affinity and at least one compound with 5-HT6 receptor affinity or medicament comprising the same or the use of the combination for the manufacture of a medicament for prophylaxis or treatment of various disorders including regulation of appetite, Alzheimer's Parkinson's, arthritis, cachexia, bulmia, anorexia etc. The claims are very broad in scope with

respect to the number of compounds in combination, in preparation of the medicament and use of such combination in manufacture of a medicament. The specification provides guidance to synthesis of the compounds that bind to NPY receptor and binding results for some of the representative compounds of formula (Ia-Ih) to NPY receptor and 5-HT<sub>6</sub> receptor. A medicament is defined as 'An agent that promotes recovery from an injury or ailment; a medicine'. The specification does not provide any guidance of making a medicament comprising at least one compound with neuropeptide receptor Y (NPY) affinity and at least one compound with 5-HT<sub>6</sub> receptor affinity. The specification does not provide guidance to any steps involved in the method/process of making the medicaments. If a medicament is used in combination for therapy the formulations comprising the active agents can be used in different formulations (e.g for sequential administration) or in a single formulation. If the medicament with the active agents is in a single pharmaceutical formulation then a person of ordinary skill in the art has to do an undue experimentation to prepare such a combination with the active substances claimed as in combination therapy potential drug interactions, toxicity measurements etc need to be considered. Applicants' have claimed the same active substance combination as a medicament for treating various disorders such as bulimia and anorexia. It is not predictable from the guidance given by the Applicants' (synthesis of the compounds with NPY receptor affinity and binding affinity for some representative samples of the compounds synthesized) that the same medicament or composition is manufactured for treating obesity and bulimia. It is not predictable from the guidance given by the Applicants' that the same medicament or pharmaceutical formulation is

manufactured for treating cardiovascular disorders and Alzheimer's. It is hard to predict whether the same medicament is used in treating various disorders claimed because each disease has a different and distinct etiology and pathophysiological manifestations, and that each is differently treated. Applicants' have not provided any guidance to making any of the pharmaceutical compositions with active substances in combination. It is not clear from the specification whether any amount of active substance that has neuropeptide receptor affinity in combination with any amount of a compound that has 5-HT6 receptor affinity will simultaneously regulate neuropeptide Y and 5-HT6 receptor. A skilled artisan would not recognize that Applicants' were in possession of the claimed invention, 'medicament comprising an active substance combination to ay one of the claims 1-6 for simultaneous neuropeptide Y and 5-HT6 receptor regulation and the manufacture of such a medicament.

### ***Claim Rejections - 35 USC § 103***

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

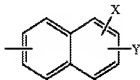
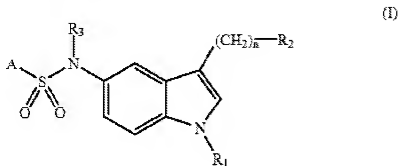
were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

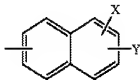
Claims 1-2, 4-9, 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruns (U.S. 5,567,714) in view of Merce-Vidal et al. (U.S. 7,105,515, effective filing date Nov 13 2002) and Caldirola et al. (U.S. 7,144,883, effective filing date, June 11 2002).

Bruns teaches a method of inhibiting a physiological disorder associated with an excess of neuropeptide Y such as disorders pertaining to the heart, obesity, diseases related to the CNS such as neurodegenerative conditions etc administering neuropeptide Y receptor antagonists (See abstract, col. 9, lines 40-65, col. 10, claim 1). The reference describes formulation of the neuropeptide Y compounds (col. 5, 6) and the use of such compounds in a method of treatment in a dosage amount of 5 mg (capsule) to 1000 mg (suspension) (see col. 10, claims 1-4). Bruns teaches pharmaceutical formulations comprising NPY affinity compounds as capsules, tablets, suspensions etc for oral administration. The reference also teaches that the pharmaceutical formulation is present in the form of granules then compacted to a tablet (col. 6, lines 25-34).

The reference does not teach a combination of the active neuropeptide Y receptor affinity compound with a HT-6 receptor affinity compound.

The reference Merce-Vidal teaches derivatives of sulphonamides (see abstract).



When  $R_1=H$ ,  $n=0$ ,  $A=$  ,  $R_3=H$  the reference teaches the elected species for 5-HT6 (see col. 2, lines 50, 65, 67, col. 3, line 24). The reference provides guidance towards the synthesis of the sulfonamide compounds, its pharmaceutical formulation the amount of daily doses (1-500 mg) in human medicine (see col. 33, lines 55-67, col. 34, example 1).

Merce-Vidal teaches that the compounds have 5-HT6 serotonin receptor antagonistic activity useful in the preparation of medicament for prevention or treatment of various CNS (central nervous system) disorders.

Caldirola et al. teaches substituted sulfonamide compounds with 5-HT6 receptor affinity to be useful for the prophylaxis and treatment of medical conditions relating to obesity, type II diabetes and/or disorders of the central nervous system (see abstract, col. 2, lines 31-35). The reference teaches preparation of such compounds, pharmaceutical formulations and a method of using such compounds in treating obesity (col. 107, claims 7-9).

It would have been obvious to one having ordinary skill in the art at the time of the invention to have combined a compound with neuropeptide receptor affinity with that of a compound with 5-HT<sub>6</sub> serotonin receptor affinity from the teachings of Bruns and Merce-Vidal. Bruns teaches the use of NPY affinity compounds to be useful in treating CNS disorders and Merce-Vidal teaches the use of 5-HT<sub>6</sub> receptor binding compounds to be useful in CNS disorders. It would have been obvious to one having ordinary skill in the art at the time of the invention to have made a combination or a formulation or a medicament of at least one compound with NPY receptor affinity with at least one compound with 5-HT<sub>6</sub> receptor affinity because both of them have been taught in the prior art to be useful in a method of treating CNS disorders. One having ordinary skill in the art would have been motivated in making such a medicament combination in expectation of using the same in a method of treating CNS disorders. One of ordinary skill in the art would have been motivated to incorporate the two agents herein in a single combination pharmaceutical composition because combining the agents herein each of which is known to be useful to treat depression individually into a single composition useful for the very same purpose is *prima facie* obvious. See *In re Kerkhoven* 205 USPQ 1069. It would have been obvious to one having ordinary skill in the art at the time of the invention to have manufactured the medicament combining NPY receptor affinity compound with 5HT-6 receptor affinity compound to use in regulation of appetite because the prior art shown above teaches the preparation of pharmaceutical formulations of the active medicaments and their use in treating obesity. Obesity is an eating disorder and one of the root causes for obesity is excessive



consumption of food. Appetite is a desire to eat food when hungry and abnormal appetite could lead to an eating disorder, obesity. Hence treating obesity condition leads to suppression of appetite or regulation of appetite. It would have been obvious to one having ordinary skill in the art at the time of the invention to have made a medicament comprising an active substance combination of a compound with neuropeptide receptor affinity with that of a compound with 5-HT6 serotonin receptor affinity or use of the combination for the manufacture of a medicament for simultaneous neuropeptide Y5 and 5-HT6 regulation. The references do not explicitly teach the amounts of NPY receptor affinity compound and 5-HT6 receptor affinity compound for active substance combination or in a medicament. However, the references in general teaches dosage amounts of NPY receptor affinity compound and 5-HT6 receptor affinity compounds in making formulations or medicaments and in the manufacture of the same. It would have been obvious to one of ordinary skill in the art at the time of the invention to have adjusted the amounts of component A and component B as claimed by the Applicants (claim 4) through routine experimental procedure. Generally, the ratios of concentration will not support the patentability unless there is evidence indicating such concentration is critical. "Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454,456, 105 USPQ 233, 235 (CCPA 1955).

Claims 38-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruns (U.S. 5,567,714) in view of Merce-Vidal et al. (U.S. 7,105,515, effective filing date

Nov 13 2002) and Caldirola et al. (U.S. 7,144,883, effective filing date, June 11 2002) as applied to claims above and further in view of Noda et al. (U.S. 5,320,853).

Bruns, Merce-Vidal et al. and Caldirola et al teachings discussed as above.

The references do not teach the pharmaceutical formulation in a sustained release form.

Noda et al. teaches controlled release formulation for pharmaceutical compounds. The reference teaches a coat and sustainable drug releasing exterior coat (see Abstract). The reference teaches water insoluble polymers including ethylcellulose, cellulose acetate (col.2, lines 40-45), drug releasing polymers such as acrylates and/or methacrylates (Eudagrit) (col. 5, lines 10-20, col. 6, lines 55-65), plasticizers (col. 5, lines 37-40) and white wax (also known as beeswax) (col. 9, line 8) in the sustained release formulation.

It would have been obvious to one having ordinary skill in the art at the time of the invention to have combined a compound with neuropeptide receptor affinity with that of a compound with 5-HT<sub>6</sub> serotonin receptor affinity and make a controlled release drug delivery device comprising such combination because it within the knowledge of the skilled pharmacologist and represent conventional formulations and modes of administration. It is well known from the prior art teachings like Noda et al. that such conventional formulations can be made. One having ordinary skill in the art at the time of the invention would have been motivated to make a controlled release formulation of the active substance combination claimed in order for once or twice a day administration of the drugs and achieve desired blood levels of the drugs in a manner

which delays or sustains the release of the drug. It would have been obvious to one having ordinary skill in the art to formulate a composition where one of the components (A) or (B) as claimed is in a non-sustained release dosage form is in case of a medical condition where one of the components needs to be delivered without any controlled drug delivery.

### **Conclusion**

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to UMAMAHESWARI RAMACHANDRAN whose telephone number is (571)272-9926. The examiner can normally be reached on M-F 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SREENI PADMANABHAN/  
Supervisory Patent Examiner, Art Unit 1627